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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,924	03/19/2004	Frederick W. Romig	030021-00020	8221
7590 07/20/2007				
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			ART UNIT	PAPER NUMBER
			3609	
			MAIL DATE	DELIVERY MODE
			07/20/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/804,924	ROMIG, FREDERICK W.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Anthony N. Bartosik	3609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                        |                                                                   |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>March 19, 2004</u> .                                          | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Objections*

1. Claims 15 and 17 are objected to because of the following informalities: The language in both claims that reads "and to opposite sides" reads awkward. Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-4, 7-9 and 11-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Romig (US 6,305,131 B1) in view of Westin et al. (US 4,122,716).**
3. In Re claim 1, Figures 1-4, Column 2 Lines 50-67 and Column 3 Lines teaches an upper floor (20) having openings there through; a lower floor (50) that is sloped from an upper end to an elongated basin. Romig teaches the use of a vent, but is silent as to its location and structure. Figures 1 and 2 as well as Column 2 of Westin et al. teaches at least one vent duct (19) disposed beneath the upper floor (17) and adjacent to the lower floor basin (8), the vent duct (19) including vent openings structured to allow air and fumes to be introduced into the vent duct (19); and means for removing the air (20)

Art Unit: 3609

and fumes in the vent duct (19) therefrom. It would have been obvious to one skilled in the art at the time of the invention to include the vent and duct system of Westin et al. with the hazardous material shelter of Romig in order to remove fumes that collect at the bottom of the channel as taught by Westin et al.

4. In Re claim 2, Figures 1 and 2 as well as Column 2 of Westin et al. disclose a means for removing the air and fumes that includes at least one exhaust fan (20).

5. In Re claim 3, Figures 1-8 Column 3 Lines 30-31 of Romig discloses an elongated basin including a channel (50) disposed at the bottom of the basin.

6. In Re claim 4, Figures 1-8 Column 3 Lines 11-12 of Romig discloses a channel (50) that is sloped in a direction generally perpendicular to the direction of the lower floor (50) slope.

7. In Re claim 7, Figures 1 and 2 as well as Column 2 of Westin et al. discloses at least one vent duct (19) that is disposed above said channel (18).

8. In Re claim 8, Column 2 Lines 38-40 of Westin et al. discloses vent openings that are disposed on the bottom of the vent duct (19, 22), facing the channel (18).

9. In Re claim 9, Column 2 Lines 38-40 of Westin et al. discloses vent openings are disposed on one or more sides of the vent duct (19, 22).

10. In Re claim 11, Figures 3A, 3B, 6, 8B of Romig discloses a lower floor (50) including a sloped floor with two portions, a first sloped portion and a second sloped portion wherein said first and second sloped portions are sloped towards each other whereby said basin is at the vertex of the lower floors (50).

Art Unit: 3609

11. In Re claim 12, Figures 3A, 3B, 6, 8B of Romig disclose an elongated basin including a channel disposed at the bottom of the basin.

12. In Re claim 13, Column 3 Lines 31-32 of Romig discloses a channel (52) that is sloped in a direction generally perpendicular to the direction of the slope of the lower floor (50).

13. In Re claim 14, Figures 1 and 2 as well as Column 2 of Westin et al. discloses at least one vent duct (19) that is disposed above said channel (18).

14. In Re claim 15, Figures 1 and 2 as well as Column 2 of Westin et al. discloses at least one vent duct (19, 22). It has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. MPEP 2144.04. It therefore, would have been obvious to one skilled in the art at the time of the invention to include two vent ducts, each said vent duct being disposed above and to opposite sides of said channel.

15. In Re claim 16, Figures 1 and 2 as well as Column 2 of Westin et al. discloses at least one vent duct (19, 22) above the bottom of said channel (18), said vent openings extending between said at least one vent duct (19, 22) and said channel, except the vent duct being disposed below said lower floor. It would have been obvious at the time of the invention was made to place the vent duct in a variety of places, one of those placements being below the lower floor in order to place the vent duct as close as possible to the fluid enabling the vent duct to draw more vapors out of the structure.

16. In Re claim 17, Figures 1 and 2 as well as Column 2 of Westin et al. discloses at least one vent duct (19, 22). It has been held that mere duplication of the essential

Art Unit: 3609

working parts of a device involves only routine skill in the art. MPEP 2144.04. It therefore, would have been obvious to one skilled in the art at the time of the invention to include two vent ducts, each said vent duct disposed above and to opposite sides of said channel.

**17. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Romig (US 6,305,131 B1) and Westin et al. (US 4,122,716) as applied to claims 1-4 above, and further in view of Heintzelman et al. (US 5,030,033).**

18. In Re claim 5, Romig and Westin et al. have been discussed above and teach at least one exhaust fan but fail to teach at least one vapor sensor disposed adjacent to it. Column 10 Lines 37-41 of Heintzelman et al. teach the use of a vapor sensor except for the location of the vapor sensor with respect to a exhaust fan. It would have been obvious to one skilled in the art at the time of the invention to combine the vapor sensor as taught by Heintzelman et al. with the exhaust fan of Westin et al. and place the sensor adjacent to the exhaust fan for the purpose of obtaining an indication of the vapor leaving the structure though the exhaust fan.

19. In Re claim 6, Figures 1 Column 3 Lines 47-61 of Romig teaches a spill detection system (70) structured to cooperate with a sensor (60), but not a vapor sensor. Column 10 Lines 37-41 of Heintzelman et al. teaches the use of a vapor sensor for detection of leaks, therefore, it would have been obvious to one skilled in the art at the time of the invention to include the vapor sensor as taught by Heintzelman et al. with the storage facility of Romig to detect leaks.

Art Unit: 3609

**20. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Romig (US 6,305,131 B1) and Westin et al. (US 4,122,716) as applied to claim 1-4, 7-9 and 11-17 and 7 above, and further in view of Hawkins et al. (US 5,597,392).**

Westin et al. teaches a vent duct, but the vent duct lacks a gate means. It is well known in the art that providing a gate means on a vent duct is an inexpensive means to regulate flow, as opposed to using a variable speed fan. Hawkins et al. teaches a gate means (18) structured to selectively open and cover the vent openings. It would have been obvious to one skilled in the art at the time of the invention to modify the vent duct of Westin et al. by including a gate means as taught by Hawkins et al. in order to provide an inexpensive means by which to regulate the flow.

**21. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Romig (US 6,305,131 B1) and Westin et al. (US 4,122,716) as applied to claim 1-4, 7-9 and 11-17 and 16 above, and further in view of Aisenberg et al. (US 6,038, 786).**

The combination of Romig and Westin et al. do not teach the lower floor including a turbulator, however, it is well known in the art as evidenced by Column 5 Lines 1-20 Aisenberg et al. to include a turbulator in order to mix air evenly. Therefore, it would have been obvious to one skilled in the art at the time of the invention to include a turbulator as taught by Aisenberg et al. on the floor or any other area of the venting system as taught by the combination of Romig and Westin et al. where air must be mixed to allow the venting system to pull air that specifically settled into a low point of the structure.

22. **Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Romig (US 6,305,131 B1), Westin et al. (US 4,122,716), and Heintzelman et al. (US 5,030,033) as applied to claims 1-4, 7-9 and 11-17 above, and further in view of Hartman (US 6,959,520).** Romig and Westin et al. have been discussed above and disclose a vent duct system, however, the combination does not specifically disclose at least one vent duct including an inner duct and an outer duct, said inner duct disposed within said outer duct; said inner duct having an intake duct extending above said upper floor; and said vent openings disposed on said outer vent duct. As assembled, Figure 1 of Westin et al.; vent duct (19) may extend into vent duct (22), thereby creating an inner duct (19) and an outer duct (22), said inner duct disposed within said outer duct; said inner duct having an intake duct extending above said upper floor (17); and said vent openings disposed on said outer vent duct (22). Such an arrangement is taught in Figure 10 of Hartman. Here an inner duct (78D) and an outer duct (77s), said inner duct (78D) are disposed within said outer duct (77S). It therefore would have been obvious to one skilled in the art at the time of the invention to assemble the vent duct system of Westin et al. in manner as taught by Hartman.

23. In Re claim 20, Westin et al. as discussed above discloses at least one vent duct that is disposed above a channel.

24. In Re claim 21, Column 10 Lines 37-41 of Heintzelman et al. teaches the use of two vapor sensors except for the location of the sensors being in an outer vent duct and in an inner vent duct. It would have been obvious to one skilled in the art at the time of



Art Unit: 3609

the invention to place a vapor sensor at each location in order to measure the amount of hazardous vapors in the two ducts.

### ***Conclusion***

Prior art made of record but not relied upon is considered pertinent to applicant's disclosure. Miller et al. (US 3,951,336), Harris et al. (US 5,074,137), Zygaj (US 4,848,617), Breen (US 3,005,205), Temple et al. (US 3,407,719), Cooper (US 5,052,569), Harding et al. (US 4,922,557), Wood et al. (US 2003/0163973), Garza (US 4,938,124). Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony N. Bartosik whose telephone number is 2723600. The examiner can normally be reached on M-F 7:30-5:00; Alter Fri Off E.D.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Batson Victor can be reached on 571-272-6987. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3609

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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6/2007